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AUTHOR Caterini, Charles
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ABSTRACT

The Outdoor Education Program for student-teachers in University of New Brunswick's (Canada) Faculty of Education comprises four weekend trips to study four different ecosystems. The seashore community of Deer Island (New Brunswick) was chosen in 1980 as a typical ecosystem. The 3-day field trip revolved around activities that could be adapted for use with elementary through secondary classes. Before the outing the student-teachers were briefed; following the trip, "round-up" sessions considered ways to integrate the trip's activities with the main school program. The trip began with an orientation and continued throughout the weekend with activities, including: a hike around the Island, map studies of the area, a lecture on the Island's marine biology, sketching the beach, determining low and high tide, recording plants and animal life, studying a tide-pool, barnacles and Periwinkle shells, looking for evidence of man's pollution, reflecting on thoughts stimulated by the environment, visiting a herring weir and the local wharf, touring a coastal fishing village, touring the Passamaquoddy area by boat and a demonstration of scallop dragging, learning about the local lore, and a compass activity. Response to the weekend of intensive study and exploration was great. (LC)

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INVESTIGATING A SEASHORE

by

Charles Caterini

Fredericton, New Brunswick

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A unique course for student-teachers at U.N.B's Faculty of Education is an Outdoor Education Program comprising four weekend trips, each extending Friday to Sunday noon. These outings provide opportunities for study of four different ecosystems.

One weekend component of the course takes them to a typical seashore community. The seashore experience is generally conducted in the St. Andrews area. In 1980 it was held on Deer Island, N.B. In the description of this weekend study, specific references will be made to the Deer Island area and community.

The 3-day field trip revolves around activities and field experiences that can be adapted for use with Elementary (levels 1-6), Junior High (levels 7-9) and Senior High (levels 10-12) classes.

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Prior to the outing a pre-weekend briefing takes place. This is at least a two hour work session in which the student-teachers are prepared for the trip itself and the activities which they will be performing. The outing is followed by "round-up" sessions in which consideration is given to ways in which these and further follow-up studies may be integrated with the main school program. In addition, further practice of certain physical skills related to the trip may be required.

The weekend study begins at 6 p.m. on Friday after the supper meal with an Orientation talk and a hike around the Island to acquaint the student-teachers with the community. This is followed by a map study of the area. Each participant is provided with a combination Hydrographic-Topographic Chart of Deer Island and a question sheet. Most of the questions are answered using the chart. A few require some research. The questions are varied covering such information as the latitude, longitude, length and width of the Island; the length of the ferry's run, the narrowest point and the average depth of the Western Passage and Head Harbor passage, the length of a Supertanker and its relationship to Head Harbor passage; the height of places such as Beach Hill, Sprague Hill, Green Hill, Stover Hill; the Flood Tides at Chatty's Point and its effect of the tides in Passamaquoddy Bay; the location and causes of ledges, shoals, rip tides, the Old Sow Whirlpool, Chops; focal points in and around the Island; the meaning of chart abbreviations such as (U) F Amber 23 ft. 4m; and the origin of names; such as, Chocolate Cove,

Richardsons Village, Indian Head, Deer Island, Mourners Delight, and Le Tete.

Around 9:30 p.m. a lecture on the Marine Biology of the Island is given by a resident Marine Biologist. This, along with the Orientation talk, hike, and the map work all help to set the stage for the Seashore and Fisheries studies to be undertaken during the next day.

On Saturday morning, following a 7 a.m. breakfast, the student-teachers begin the seashore ecology study. This involves a series of activities such as sketching a plane view and cross-sectional view of the beach, a walk from the low tide line to the high tide line (perpendicular to the water line), and recording each different form of plant and animal life encountered. The approximate positions of these plants and animals must be shown on the cross-sectional diagram. Each student-teacher finds a tide-pool, positions and sketches this on his/her plane view diagram, takes the temperature of water in the tide-pool and compares this to the temperature of the water in the bay, notes time when temperatures were taken, indicates on sketch where plants and animals were found, and measures and records on the sketch, the length, width and depth of the tide-pool.

Following the tide-pool activity, barnacles attached to a rock are located, placed under water, and observed for 5 to 10 minutes. The size, shape, color and behaviour of the observed barnacles are recorded.

Twenty-five empty Periwinkle shells are collected, classified as rough, smooth, or coarse. In addition they are examined for circular drill holes; an attempt is made to determine the cause or causes of these holes.

The beach area of study is searched for evidence of man's pollution. At least ten examples are recorded.

The final seashore ecological activity involves sitting down in a comfortable area of the beach and reflecting on the things seen, sounds, odors, feelings about the seashores, life among the rocks, human activity on the beach, and any other thoughts stimulated by the environment. Finally, each student is invited to express his/her reflections creatively in the form of a descriptive paragraph or a poem.

Following the noon lunch, around 1 p.m., the students begin a Fisheries study. Each uses the combination Hydrographic-Topographic Chart of the Deer Island area to plot the following:

1. Herring Weir
2. Sardine Cannery
3. Lobster Pound
4. Salmon Pens
5. Wharf
6. Tidal Whirlpool
7. International Boundary
8. Ferry Landing

Next, they visit a Herring Weir, talk to herring seiners and find

out the details of the construction, upkeep, and operation of a Herring Weir.

They visit the local wharf where Inshore and Offshore Fisheries are discussed with boat captains and crews. Comparisons of these Fisheries are made with reference to equipment, methods, boats, crews, and capital investment.

The final activity in the Fisheries study involves a walking tour of Richardson Village, a typical coastal fishing village. Students report on this village and its relationship with fisheries and the sea. They look for examples of fishing activity and note any secondary activities related to the fisheries. They report any evidence of innovative marine activity. From these observations of the village and its lifestyle, they try to assess the standard of living which the marine resources have supported.

Following the evening meal, all the students enjoy an interesting two-hour boat tour on a ground fish scallop dragger of the Passamaquoddy area. One highlight of the boat tour is an explanation and demonstration of scallop dragging by the captain and crew. Another highlight is the closeup view of Head Harbour Passage where someday supertankers may try to sail.

The evening session is time for relaxation and learning more about

the community. A local historian, a local photographer and a local story-teller keep the student-teachers entertained with fascinating descriptions of documented historical events, with pictures capturing on film the beauties of the area and with the telling of tall tales, legends, and folklore that make the community unique and intriguing.

The weekend comes to an end on Sunday morning with a compass point to point activity which features some of the places of the area's intrigue, beauty and folklore that were portrayed the previous evening.

The response to these intensive week-ends of study and exploration has been great. General interest among the students of the Faculty of Education for this course is high and numbers of participants have had to be limited. It is hoped that this initial experience in marine education may encourage teachers to learn more and to introduce like experiences within the classroom.